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AUTHOR Reschly, Daniel J.
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ABSTRACT

Issues related to conception, assessment, decision-making, and instructional programming for the retarded in the adaptive behavior domain are discussed. Issues in the conception of adaptive behavior include its relationship to other constructs such as cognitive competence and emotional competence, the nearly universal use of certain domains, different purposes for which the conception was established, the degree to which cognitive competencies are included, and the relative emphasis on different settings. Issues in the assessment of adaptive behavior include the purpose of the assessment procedure, methods used to collect the information, and the setting in which the information is gathered. For assessment purposes, four domains were identified: independent functioning, social functioning, functional academic competencies, and vocational/occupational competencies. Recently developed instruments have improved the resources available for assessment of adaptive behavior. It is concluded that adaptive behavior should be prominent in decisions at all levels with students classified as mentally disabled, including the initial comprehensive evaluation, choice of placement option, determination of individualized education program goals, determination of instructional objectives, selection of instructional routines, annual evaluation of progress, and reevaluation. Described are 10 principles reflecting recommendations for best practices in the use of adaptive behavior. Six tables and four figures are included. (JDD)

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Chapter Four

# *Incorporating Adaptive Behavior Deficits Into Instructional Programs*

**Daniel J. Reschly**

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## OVERVIEW

Adaptive behavior has been fundamental to conceptions of mental retardation (mental disabilities) for many decades. The role of adaptive behavior in classification and placement decisions has become increasingly prominent over the past twenty years due to a variety of influences (Reschly, 1982, 1987a, b). Adaptive behavior has not been as prominent in decisions about programming and interventions. Although a number of issues could be cited for the lesser influence on programming (e.g., confusion over conception, inadequate assessment instruments, and uncertain relationships between assessment procedures and programming objectives), adaptive behavior is seen here as essential in programming decisions. In this chapter, issues related to conception, assessment, decision-making, and instructional programming in the adaptive behavior domain will be discussed. The purpose of this discussion will be to provide essential information on the use of adaptive behavior in programming, particularly the possible links between comprehensive evaluations conducted by support services personnel and instructional programming in resource teaching programs or self-contained special classes.

## BASIC CONSIDERATIONS

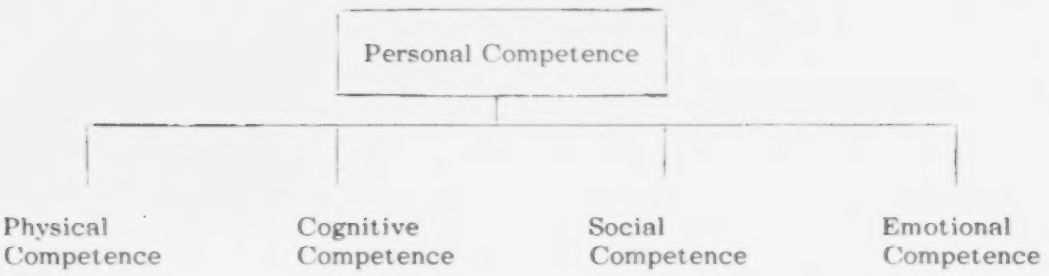
Adaptive behavior is, "...the effectiveness or degree with which the individual meets the standards of personal independence and social responsibility..." (Grossman, 1983, p. 1). This definition of adaptive behavior, formulated by the American Association on Mental Deficiency (AAMD), is the most widely accepted definition of adaptive behavior. The key concepts in this definition, personal independence and social responsibility, are quite obviously open to a variety of interpretations. These different interpretations provide the basis for differences in points of view concerning conception and assessment of adaptive behavior. The differences in point of view have a direct influence on how adaptive behavior is conceptualized, assessed, and incorporated in programming decisions.

### Issues in Adaptive Behavior Conception

There are a number of similarities and differences in the conception of adaptive behavior which have a profound influence on how adaptive behavior might be measured and on decision-making with adaptive behavior. One of the most important issues concerning adaptive behavior is the relationship to other constructs such as cognitive competence and emotional competence. In Figure 1, a model of human competence based to a large extent on Greenspan (1979) was developed to clarify the relationship between these constructs (Gresham & Reschly, 1987; Reschly & Gresham, 1987). The key notion here is that at the margins of social competence there is some overlap with cognitive competencies and with emotional competencies. Thus, it is impossible to totally separate adaptive behavior from other key constructs. Gresham and Reschly (1987) also suggested two major components of social competence, adaptive behavior and social skills. The overlap of adaptive behavior and social skills was supported further by a review published by Gresham & Elliott (1987) in which the social skills content of two widely used adaptive behavior measures was carefully assessed. These authors concluded that social skills constituted from 25% to 40% of the content on two adaptive behavior measures. Thus, there is considerable overlap between social skills and adaptive behavior, such that the more general construct is probably social competence.

Figure 1

A Model of Human Competence




The debate over whether a specific domain is included within the particular construct may seem to be esoteric. However, the degree to which social skills are included with adaptive behavior has significant implications for how adaptive behavior might be assessed, the decisions that might be made in classification and placement, in programming, and in the curricular materials that might be available for instructional purposes.

At the other margin, social competence overlaps with some cognitive competencies. The similarities and differences between cognitive competencies and adaptive behavior will be discussed in a later section.

Nearly all conceptions of adaptive behavior use the basic definition formulated by AAMD. This definition also specifies consideration of age and cultural context. The major criteria to judge adaptive behavior at different ages are presented in Table 1. It is important to note that the criteria for prior ages are incorporated into the criteria for later ages.

A final similarity in conceptions of adaptive behavior is the nearly universal use of certain domains. The domains which nearly always appear on adaptive behavior measures are learning to function independently, ranging from skills such as feeding and dressing oneself and toileting to higher level skills such as being able to travel independently in the community, skills in shopping and handling money, and so on. Other domains which are commonly included in adaptive behavior measures are socialization or peer relationships and vocational or occupational competencies.

There are also a number of differences in adaptive behavior conception. Perhaps the most important difference is in the purpose for which the conception was established as quite different purposes have been established. For example, Henry Leland commented that the underlying purpose in the development of the clinical version of the Adaptive Behavior Scale (ABS) was to assess the "reversible aspects" of mental retardation (Leland, 1978). Furthermore, the developers of that scale were principally interested in persons who were then residing in institutional settings, most of whom were severely disabled. Thus, the underlying purpose for the ABS was to improve programming for persons with severe retardation. In contrast, the underlying purpose of the development of the Adaptive Behavior Inventory for Children (ABIC)

(Mercer, 1979) was to reduce the proportion of minority students classified as mildly disabled. Here classification and placement was the primary purpose and the population of interest was mildly, rather than severely disabled. The principal basis for judging the usefulness of the ABS should be the degree to which it is related to programming, particularly with individuals more severely disabled. In contrast, the degree to which the ABIC is useful should be judged on the degree to which it improves classification and placement decisions through the provision of useful normative information. Different purposes lead to quite different kinds of assessment devices. A frequent mistake in all areas of assessment is to use an instrument designed for one purpose to attempt to develop answers related to another purpose.

Table 1

Key Excerpts about Adaptive Behavior from the
AAMD Classification System

"Adaptive Behavior is defined as the effectiveness or degree with which individuals meet the standards of personal independence and social responsibility expected for age and cultural group."

"Expectations of adaptive behavior vary for different age groups; DEFICITS IN ADAPTIVE BEHAVIOR will vary at different ages. These may be reflected in the following areas:

During INFANCY AND EARLY CHILDHOOD in:

1. Sensorimotor Skills Development
2. Communication Skills (including speech and language)
3. Self Help Skills
4. Socialization (development of ability to interact with others)

During CHILDHOOD AND EARLY ADOLESCENCES in areas 1-4 and/or:

5. Application of Basic Academic Skills in Daily Life Activities
6. Application of Appropriate Reasoning and Judgment in Mastery of the Environment
7. Social Skills (participation in group activities and interpersonal relationships

During LATE ADOLESCENCE AND ADULT LIFE in areas 1-7 and/or:

8. Vocational and Social Responsibilities and Performance" (Grossman, 1983, p. 25).

One of the most important differences in conception of adaptive behavior is the degree to which cognitive competencies are included. Some conceptions and measurement instruments place primary reliance on, while others virtually ignore, cognitive competencies. An example dealing with use of money might illustrate these differences. Nearly all adaptive behavior scales include content on understanding basic economic transactions and shopping skills. One way to assess the handling of money skill would be to ask a third party respondent, such as a parent or teacher, about whether the student can handle money and whether he or she purchases items at a store. If the respondent indicates that the individual does engage in those behaviors, then the skill might be viewed as having been mastered at least at some level by the student. This particular approach places relatively little emphasis on underlying cognitive competencies. In contrast, we might provide a situation where the student was given a requisite number of coins plus some additional coins and ask him or her to make change. In the latter instance, we would be assessing the skill more directly and some underlying cognitive competencies, at least simple addition and subtraction, would be involved. The degree to which cognitive competencies are included is far from a trivial matter. If underlying cognitive competencies are included, then many more students would be classified as mentally disabled than will be the case if such competencies are excluded (Reschly, 1981).

Another of the important differences among conceptions of adaptive behavior is the relative emphasis on different settings. This is especially important for school age children where different conceptions and measures place markedly different emphases on in-school vs. out-of-school settings. Some instruments and conceptions place almost exclusive reliance on in-school adaptive behavior while others place equally strong and extreme emphases on out-of-school adaptive behavior. Although a full discussion of the argument concerning in-school vs. out-of-school adaptive behavior is perhaps beyond the scope of this chapter, a brief rationale and descriptions of the two settings is provided in Table 2, further elaboration is provided later in a subsection on adaptive behavior domains, and still further discussion is available in Reschly (1982, 1987a, b).

As noted earlier, there are some common domains that nearly always appear on adaptive behavior scales. There are also a number of domains which are included on some scales and excluded on others. One of these domains is motor skills. Two of the recently developed adaptive behavior scales (Bruininks, Woodcock, Weatherman, & Hill, 1984; Sparrow, Balla, Cicchetti, & 1984) have included a motor skills domain for persons under a certain age but a third did not (Adams, 1984a, 1984b). Another difference in adaptive behavior scales is whether or not maladaptive behaviors and items related to emotional disorders are included. Two of the recently developed scales included a maladaptive behaviors section while a third did not. The importance of both of these domains is probably related to degree to which the scale is used for classification and placement versus program planning and intervention purposes. On scales used primarily for classification and placement, the inclusion of motor skills and maladaptive behaviors is perhaps inappropriate. Given the meaning of the construct of mild mental retardation, it seems quite inappropriate to classify a student as mildly disabled when their only deficit in adaptive behavior has to do with an emotional or behavioral disorder. Students with primary handicaps of an emotional or behavioral disorders nature should be classified, if appropriate, as behavior disordered, not mentally disabled. However, to the degree that the scale is used for program planning or interventions, the information from the maladaptive behaviors domain or emotional disorders area is often extremely important. Frequently, it is behaviors in these

realms which prevent persons who are mentally disabled from adjusting successfully to community settings. These additional adaptive behavior domains might therefore be seen as essential considerations in program planning and interventions, but largely irrelevant to whether or not the individual should be diagnosed as mentally retarded.

Table 2

Conception of Adaptive Behavior for School Age Children

ADAPTIVE BEHAVIOR: SCHOOL BASED

Rationale:

1. Mastery of literacy skills is a key developmental task for persons between the ages of 5 and 18.
2. The expectation for and emphasis on educational competencies is common to most if not all major sociocultural groups.

Assessment:

1. Collection and consideration of a broad variety of information including teacher interview, review of cumulative records, examination of samples of classroom work, classroom observation, group standardized achievement tests, individual achievement tests, diagnostic achievement tests, and other informal achievement measures, classroom coping skills, interpersonal skills, and maladaptive behaviors.

ADAPTIVE BEHAVIOR: OUTSIDE OF SCHOOL

Rationale:

1. Mastery of a variety of non-academic competencies also is expected, and a key developmental task between ages of 5 and 18.
2. The expectations for and opportunities to develop non-academic competencies may vary among different contexts.

Assessment:

1. Collection of information on social role performance outside of school in areas such as: peer relations, family relationships, degree of independence, responsibilities assumed, economic and vocational activites, etc.
2. Method of collecting data may include structured measures such as interviews with parents or students, or informal measures.

## Issues in Assessment of Adaptive Behavior

A number of issues in the assessment of adaptive behavior have a profound influence on the decisions that might be reached in classification and placement or program planning and intervention. The first of these differences has to do with the underlying purpose for which the assessment procedure was developed. There are two principal purposes for which adaptive behavior information is used. The first of these, classification and placement, involves determination of whether or not the individual is eligible for classification as handicapped, and then, whether a special education program is required in order for the student to receive an appropriate education. These decisions are sequential, eligibility first, then determination of whether or not a special education program is needed. Classification and placement decisions generally require reliable and valid information on the degree to which the individual is different from age or grade level expectations. Norm referenced instruments are typically the most appropriate kinds of measures for this kind of decision. There are a number of critical considerations in the selection of a norm referenced instrument (Reschly, 1987a, b). Briefly, the criteria which should govern selection of a norm referenced instrument are: a) appropriate item content with a sufficiently large sample that adequately represents important domains of behavior, b) norms which represent the important characteristics of the populations of interest, c) derived scores which can be used as part of the method to operationalize classification criteria, d) reliability information showing that the measurement procedure is consistent and stable, and e) validity evidence indicating the critical relationships of performance on the instrument to other criteria of interest.

The second purpose for which adaptive behavior information is collected is decision-making about program planning and intervention. These decisions entail deciding exactly what needs to be taught. Reliable and valid information is needed concerning skills the student has mastered and skills that are needed in order for the person to function capably in a variety of environments. Criterion referenced information should generally be used in establishing the specific objectives for educational programming and in evaluating the degree to which the individual has profited from instruction. The critical criteria that should govern the selection of criterion referenced instruments are a) appropriate item content with thorough coverage of all of the important skills in a domain of behavior, b) objective scoring that yields reliable results, c) a well established hierarchy and sequence of skills which can be used to interpret performance, and d) an explicit relationship between performance on specific items or collections of items and instruction or interventions. Instruments which yield this kind of information provide a tremendous asset for us when we are attempting to make programming decisions. A critical point here is the necessity of thorough coverage of all of skills; in contrast, the content requirement for a norm referenced instrument was a representative sample of skills. Moreover, these skills need to be related to some kind of hierarchy and sequence so that performance can be interpreted in terms of skills mastered and skills not yet mastered. Finally, an explicit relationship to instruction and interventions provides an enormous boost to the usefulness of the information. As we shall see in a later section, only a few instruments meet the rather exacting criteria for the kind of information we need for program planning and interventions.

Another issue in the assessment of adaptive behavior is the method used to collect the information. The currently available adaptive behavior instruments reflect at least three methods, the most common of which is interview with a third party. For example, the third party respondent for school age children and youth

might be either a parent or a teacher. The interview may be highly structured in which exact wording of questions and responses is specified or the interview may be loosely structured requiring a considerable amount of skill on the part of the interviewer. A second method of collecting adaptive behavior information is to directly assess the skills exhibited by the student. This direct assessment might be done according to standardized procedures using methods quite similar to those used in individual measures of achievement and ability. A third method of collecting adaptive behavior information might be to observe the student in daily life activities and then to rate the individual's skills on those behaviors observed. Each of the methods of collecting information has strengths and weaknesses which need to be recognized in interpreting results of an instrument (Reschly, 1987a, b). Perhaps a more important consideration, related to method, is choice of source of information. There are four plausible sources of information on adaptive behavior, the student, peers of the student, parents, and teachers. The most commonly used sources are interviews with parents and checklists completed by teachers. Depending on the kind of adaptive behavior information, each of these sources might be more appropriate than others. For example, information on social skills and peer relationships might best be gathered through some kind of method which draws information from peers.

A final issue in the assessment of adaptive behavior is the setting in which the information is gathered. The major alternatives for school age children, in-school and out-of-school, were also discussed as an issue in conception of adaptive behavior. The easy way out of this dilemma might be to simply say, both settings are important and assessment information from both settings will be obtained. This does not resolve the dilemma because information across the two settings is often inconsistent. The inconsistencies in the information then leads to the dilemma over which setting is seen as most important, which should take precedence, particularly in classification and placement decisions (Reschly, 1981, 1987a, b). That dilemma has no absolute solution applicable to all cases, multidisciplinary teams must consider the relative benefits and risks of special education classification and placement as well as the degree to which the deficit in one of the settings impairs performance in key domains, now and in the future. A further use of the adaptive behavior information from the two settings is suggested in Figure 2 where placement in the part time resource option is recommended for students having significant adaptive behavior deficits in school, but relatively normal performance in the out-of-school setting.

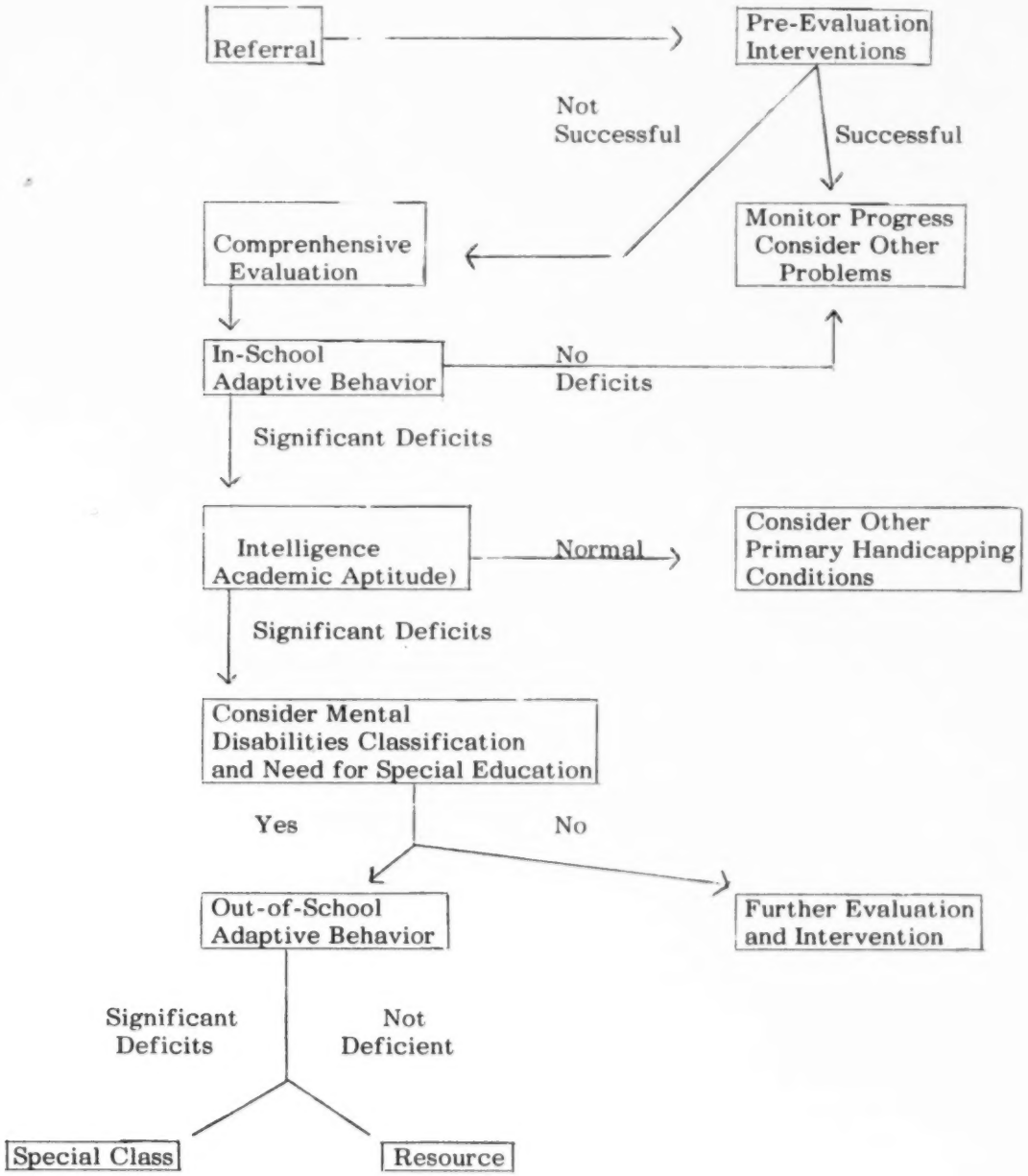
## Adaptive Behavior Domains

The exact number and names for adaptive behavior domains are arbitrary. Due to the variation in measures (and conceptions) it is impossible to adopt a specific scheme of domains and subdomains from a specific instrument or previously developed conception of adaptive behavior. The most authoritative source in this area, the American Association of Mental Deficiency (AAMD), does not establish domains or subdomains of adaptive behavior (Grossman, 1983).

Based on careful review of available instruments and considerable discussion, four domains of adaptive behavior were established in work completed recently in Minnesota and Florida (Reschly, 1987a, b) The four broad areas were thought to represent the most important domains of adaptive behavior for the purposes of educational decision-making, particularly for the purposes of classification and placement decisions. They incorporate nearly all of the domains and subdomains which appear on adaptive behavior instruments. Typically, an adaptive behavior instrument will include two or more subscales which can be related to each of the domains.

Figure 2

A Scheme for Use of Adaptive Behavior Information in Mental Disabilities Classification and in Selection of Special Education Program Options



Depending on purpose of assessment, a greater or lesser number of domains and greater or lesser breadth is desirable. For classification and placement purposes, relatively few domains that are quite broad would be the preferred situation. Fewer domains that are quite broad are more likely to be related to significant areas of development that occur over a span of several years. Classification and placement decisions, although reviewed annually, are usually long term, significant influences on the lives of children and youth. The decision to classify a student as mentally disabled must be based on capabilities in broad areas which develop over several years and have significance for adult adjustment. This helps ensure that children and youth are not classified as mentally disabled due to narrow, highly age specific difficulties with specific tasks.

Quite different needs exist for adaptive behavior domains and subdomains for the program planning and intervention purpose. Here, much greater specificity is desirable. A greater number of domains, subdomains, and specific skills within subdomains facilitates the identification of specific skills and the subsequent organization and implementation of instruction. Some adaptive behavior instruments do provide an approximation to the degree of specificity in subdomains and specific skills required to design instruction. Most do not.

The four domains discussed below were chosen based on the following considerations:

1. The careful study of conceptions of adaptive behavior including recent versions of the AAMD classification scheme.

2. Recently published chapters on adaptive behavior and related topics.

3. The results of empirical studies.

4. Standardized instruments measuring adaptive behavior, particularly the instruments developed and published in the last decade.

5. Long-term developmental significance.

6. The purpose of classification and placement in a school setting.

7. The potential relevance of the adaptive behavior domain to educational programming.

An extensive list of references for each of these points was provided in Reschly (1986, 1987). These four broad domains are (a) Independent Functioning, (b) Social Functioning, (c) Functional Academic Competencies, and (d) Vocational Occupational Competencies.

## Independent Functioning

Competencies dealing with functioning independently are perhaps the most widely accepted component of adaptive behavior. Every scale has one or more sets of items dealing with independent functioning. Independent functioning virtually always includes items on skills related to toileting, feeding oneself, dressing oneself, avoiding danger, and maintenance of a minimal level of safety and health. A variety of other kinds of skills may also be included within this general domain. Skills

sometimes represented are mobility about the environment, being able to travel unaided, consumer skills, knowledge of sources of information, appropriate action in different emergencies, use of communication devices such as the telephone, acceptable use of leisure time, and degree of need for supervision. One way to think of the competencies in this domain is to consider all of the essential coping behaviors an adult must master in various environments in order to function adequately.

All current adaptive scales include numerous items and, usually, several subdomains which might be organized within this domain. Use of information from these diverse item pools and subtests is necessary in order to make a judgment about possible deficits in independent functioning.

## Social Functioning

Nearly all adaptive behavior scales include items on interpersonal relationships. Getting along with others at some minimal level is a basic, fundamental component of adaptive behavior. Social functioning includes all of those behaviors involving the individual with other people. There is a vast array of such behaviors that vary by age, cultural factors, setting, and role. Some of the key competencies in this domain include appropriate attention to other persons, acceptable orienting and posturing responses, acceptable efforts to communicate, sharing appropriately, expressing feelings in an acceptable fashion, forming friendships, recognition of the needs and feelings of others, avoidance of obnoxious behaviors, and situational appropriateness of behaviors.

The degree to which specific social skills are included in the items on adaptive behavior measures varies considerably. Some instruments have a considerable number of quite specific social skills items while others have only a few general items. Another variation in scales has to do with the degree to which maladaptive behaviors are included. Some scales have an extensive series of items which reflect behavior disorders more than specific adaptive behavior skills. These behavior disorder characteristics certainly influence whether or not a person is acceptable to others, but might be seen as reflecting the general area of emotional rather than social competence (recall a previous discussion). The question is where social competence or adaptive behavior ends and where emotional competence, including maladaptive behaviors, begins. That is somewhat of an academic debate, put presence or absence of these behavior disorder characteristics will certainly influence the degree to which the individual is acceptable to others. Therefore, these items on behavior disorders should be included in consideration of program planning and interventions, but they should not be the sole basis for determining the existence of an adaptive behavior deficit in the domain of social functioning. More will be said later about the relationship of maladaptive behaviors to the determination of adaptive behavior deficits.

In the social functioning area it is useful to consider all the ways one can be perceived by others as unacceptable and unsuccessful due to problems in interpersonal relations or through the negative reactions of other people. Behaviors which cause others to be offended or to reject the individual are, by definition, socially unacceptable. As with all adaptive behavior domains, the influences of sex role, situational expectations, and cultural context must be considered in judgments of social functioning.

## Functional Academic Competencies

Adaptive behavior conceptions and instruments vary on the degree to which functional academic competencies are included. Some adaptive behavior scales include a great deal of content in this area while at least one scale includes virtually none. The inclusion and relative emphasis on this domain is probably one of the most controversial issues in mental retardation classification. Functional academic competencies has been included for a variety of reasons. Chief among these reasons was the central mission of the school in developing at least minimal academic competencies that are absolutely essential for competent performance in various roles during the child, adolescent, and adult years. Furthermore, the AAMD criteria for adaptive behavior during the school age years, as well as the criteria for the adult years, include the application and use of academic skills in daily life activities. This practical everyday application feature is an essential component of our notion of functional academic competencies.

The major concern with functional academic competencies has to do with the basic, fundamental literacy skills and knowledge of concepts of time and number. Functional academic skills do not include more esoteric intellectual or cognitive competencies that, although certainly desirable, are not essential to competent functioning in other adaptive behavior domains and in everyday settings. Functional academics refers to very basic reading and writing skills and practical, everyday demands for knowledge of numerical and temporal relationships. Considerable delay in the acquisition of these skills is sufficient to constitute a deficit in adaptive behavior, but the delay in this domain must be substantial in relation to other students of the same age and the same sociocultural group. Furthermore, several sources of information should substantiate consistently the existence of a deficit in functional academic competencies. A single deficient standardized test score in some domain of achievement is not sufficient. The measures reflecting the deficits must be consistent across different indices of achievement, recognized with several sources of information, and must be shown to influence or be highly likely to influence practical, everyday functioning.

The essential character of skills in this domain needs to be emphasized repeatedly. We do not mean academic skills that are merely "desirable" but wish to focus on those skills, the absence of which, would cause others to regard the individual as lacking competence. Moreover, another key characteristic of functional academic competencies is the relationship to competent functioning in other adaptive behavior domains. The question to consider is, "Does absence of this academic skill lead the person to be regarded as lacking competence in independent functioning, social functioning, or vocational/occupational development?" If the absence of the academic competence does lead to perception of lack of competence in other adaptive behavior domains, then the skill can be legitimately regarded as fundamental or basic, and therefore, representative of this domain. An exercise for judging whether or not a specific academic skills is functional is provided as an appendix to this chapter.

## Vocational/Occupational Competencies

The competencies associated with the vocational/occupational domain are not expected to develop until at least the early school years, but become increasingly important at progressively higher age and grade levels. For high school students and

young adults classified as mildly or moderately mentally handicapped, the vocational/occupational domain assumes paramount importance. This typically does not mean that other domains are ignored since minimal competence in the other three domains is typically a prerequisite to good vocational/occupational performance. Poor performance in one of the other domains may preclude competent performance of at least some, and perhaps many, vocational/occupational skills. The vocational/occupational domain includes at least three subdomains:

1. Knowledge about careers and work.

2. Appropriate attitudes and values concerning careers and work.

3. Specific skills associated with a job or career.

The vocational/occupational domain is primarily important for program planning and intervention. It should not be used, typically, as the basis for a deficit in adaptive behavior in an initial mentally disabled classification and placement decision. Typically, such classification and placement decisions are made relatively early in the student's school career, usually by about age eight or nine and almost always prior to age fourteen. At these younger ages, the vocational/occupational domain is not a sufficiently important area of functioning to constitute the basis for determining a deficit in adaptive behavior which could then be used to justify classification and placement as mentally handicapped. Later, of course, vocational/occupational competencies are crucial in relation to late adolescent and early adult adjustment.

## Recently Published Adaptive Behavior Instruments

Three reasonably well standardized adaptive behavior instruments were published in 1984. These instruments generally satisfy the important criteria for technical adequacy and yield useful information for both classification/placement and program planning/intervention decision-making. Each of these instruments is reviewed briefly here, with more extensive information provided in Reschly (1987a, b).

The Comprehensive Test of Adaptive Behavior (CTAB) (Adams, 1984a) and the Normative Adaptive Behavior Checklist (Adams, 1984b) are designed to provide criterion and norm referenced information, respectively. The CTAB is a particularly good criterion referenced instrument that might be used as the primary basis for determining general goals in individual educational plans. The major subdomains on this scale are self-help skills, home living skills, independent living skills, social skills, sensory and motor skills, and language and academic skills. The CTAB has approximately 500 items. In my judgment, the CTAB has excellent content validity, adequate norms, very high reliability, and, potentially, good criterion related validity. The CTAB might be used either in classification and placement or, more likely and more appropriately, in program planning and intervention decisions.

The Vineland Adaptive Behavior Scales, also published in 1984 (Sparrow et al.) are organized into three administration formats, a Survey Form involving an interview requiring about 45 minutes, a Classroom Edition which is administered as a teacher checklist, and an Expanded Form also administered as an interview. The Survey and Expanded Forms are well-integrated with the former representing a

sample of items from the latter. The Survey Form is a sound norm referenced instrument and the expanded form appears to be a quite useful criterion referenced instrument which could be used to a considerable degree in program planning and intervention. The Classroom Edition is a checklist which can be filled out independently by the teacher in about 20 minutes.

Each of the Vineland Adaptive Behavior Scales formats has somewhat unique strengths and weaknesses. A major weakness of the interview instruments is that the interview is only loosely structured. Conducting the Vineland interviews requires considerable practice and skill. Due to problems with loosely structured interviews, the interjudge agreement, a form of reliability, is somewhat lower than would be desirable. Otherwise the Vineland survey instruments appear to be quite sound, particularly on the criterion of adequate norms. The Vineland Classroom Edition has excellent reliability, outstanding norms, and one of the best sections on the development and limitations of various derived scores (Harris, 1984). However, a significant portion of the items on the Classroom Edition, perhaps 20 or 25%, require the teacher to make judgments about adaptive behaviors outside of the school setting. For the most part, teachers would rarely, if ever, have any direct contact with the student in those other settings. However, the teacher is encouraged to "estimate" whether or not the student can perform a particular skill. The Classroom Edition is limited because of the questionable item content.

Overall, the Vineland Scales are potentially quite useful, particularly the Expanded Version, for program planning and intervention decisions and the Survey instrument for classification and placement decisions. Users of the Vineland Scales must keep in mind the tremendous importance of good interviewing skills.

The third instrument published in 1984 was the Scales of Independent Behavior (SIB) (Bruininks et al., 1984). The SIB is administered as a highly structured interview using the easel format that is now familiar to nearly everyone involved with psychoeducational assessment. The SIB has outstanding content validity, good norms, and excellent reliability and validity. This instrument in its present form is, however, largely restricted to norm referenced assessment and classification and placement decision-making. The senior author of this instrument has indicated that a very detailed checklist is being developed which will attempt to translate information from the SIB into a more criterion referenced format that will be useful in program planning and intervention. Persons seeking information on adaptive behavior for programming and intervention would be well advised to seriously consider this checklist when it becomes available.

### Published Instruments and Adaptive Behavior Domains

Measures for the four major adaptive behavior domains are presented in Tables 3, 4, 5, and 6. There are several measures for each of the domains, but most of the measures provide content from more than one domain. These measures provide a reasonable starting point for assessment of each of the domains. When significant weaknesses are identified, further assessment for the purpose of determining specific skills should be completed.

Table 3

Scores from Standardized Instruments
in the Independent Functioning (IF) Domain

| INDEPENDENT FUNCTIONING (IF) | | | |
|---|---|---|---|
| Instrument | Subtest | Single or Mixed Domain Content | Derived Score Quality |
| CTAB | Self Help Skills | Single | Adequate |
| CTAB | Home Living Skills | Single | Adequate |
| CTAB | Independent Living Skills | Mixed (FA, VO) | Adequate |
| NABC | Self Help Skills | Single | Poor |
| NABC | Home Living Skills | Single | Poor |
| NABC | Independent Living Skills | Mixed (FA, VO) | Poor |
| SIB | Personal Living Skills | Single | Adequate |
| SIB | Community Living Skills | Mixed (FA, VO) | Adequate |
| VABS-C | Daily Living Skills | Mixed (FA) | Adequate |
| VABS-E | Daily Living Skills | Mixed (FA) | Adequate |
| VABS-S | Daily Living Skills | Mixed (FA) | Adequate |

Key: CTAB=Comprehensive Test of Adaptive Behavior; NABC=Normative Adaptive Behavir Checklist; SIB=Scales of Independent Behavior; VABS=Vineland Adaptive Behavior Scales; C=Classroom; E=Experimental; S=Survey; IF=Independent Functioning; FA=Functional Academics; SF=Social Functioning; VO=Vocational and Occupational

Table 4

Scores from Standardized Instruments
in the Social Functioning (SF) Domain

| SOCIAL FUNCTIONING (SF) | | | |
|---|---|---|---|
| Instrument | Subtest | Single or Mixed Domain Content | Derived Score Quality |
| CTAB | Social Skills | Single | Adequate |
| NABC | Social Skills | Single | Poor |
| SIB | Social Interaction and Communication | Mixed (FA) | Adequate |
| VABS-C | Socialization | Single | Adequate |
| VABS-E | Socialization | Single | Adequate |
| VABS-S | Socialization | Single | Adequate |

Key: CTAB=Comprehensive Test of Adaptive Behavior; NABC=Normative Adaptive Behavir Checklist; SIB=Scales of Independent Behavior; VABS=Vineland Adaptive Behavior Scales; C=Classroom; E=Experimental; S=Survey; IF=Independent Functioning; FA=Functional Academics; SF=Social Functioning; VO=Vocational and Occupational

Table 5

Scores from Standardized Instruments in the Functional Academics (FA) Domain

| FUNCTIONAL ACADEMICS (FA) | | | |
|---|---|---|---|
| Instrument | Subtest | Single or Mixed Domain Content | Derived Score Quality |
| CTAB | Independent Living | Mixed (IF, VO) | Adequate |
| CTAB | Language and Academics | Single | Adequate |
| NABC | Independent Living | Mixed (IF, VO) | Poor |
| NABC | Language and Academic | Single | Poor |
| SIB | Social Interaction and Communication | Mixed (SF) | Adequate |
| SIB | Community Living | Mixed (IF, VO) | Adequate |
| VABS-C | Communication | Single | Adequate |
| VABS-C | Daily Living | Mixed (IF) | Adequate |
| VABS-E | Communication | Single | Adequate |
| VABS-E | Daily Living | Mixed (IF) | Adequate |
| VABS-S | Communication | Single | Adequate |
| VABS-S | Daily Living | Mixed (IF) | Adequate |

Key: CTAB=Comprehensive Test of Adaptive Behavior; NABC=Normative Adaptive Behavir Checklist; SIB=Scales of Independent Behavior; VABS=Vineland Adaptive Behavior Scales; C=Classroom; E=Experimental; S=Survey; IF=Independent Functioning; FA=Functional Academics; SF=Social Functioning; VO=Vocational and Occupational

Table 6

Scores from Standardized Instruments in the Vocational and Occupational (VO) Domain

| VOCATIONAL AND OCCUPATIONAL (VO) | | | |
|---|---|---|---|
| Instrument | Subtest | Single or Mixed Domain Content | Derived Score Quality |
| CTAB | Independent Living | Mixed (IF, FA) | Adequate |
| NABC | Independent Living | Mixed (IF, FA) | Poor |
| SIB | Community Living | Mixed (IF, FA) | Adequate |

Key: CTAB=Comprehensive Test of Adaptive Behavior; NABC=Normative Adaptive Behavior Checklist; SIB=Scales of Independent Behavior; IF=Independent Functioning; FA=Functional Academics; VO=Vocational and Occupational

## Informal Measures

There are a number of informal measures which can be used in decisions about program planning and intervention. These informal instruments typically do not have norms, but they often provide information on specific skills which can be related to specific instructional routines or interventions. A variety of interview and role play methods for teaching social skills were described in Cartledge and Milburn (1986) and in a number of other sources discussed briefly in this section. The skill streaming documents (Goldstein, Sprafkin, Gershaw, & Klein, 1980; McGinnis & Goldstein, 1984) are designed to provide information on social skills interventions which might be carried out in educational settings. Another informal measure with clearly established implications for programming is the Walker Social Skills Curriculum (Walker, McConnell, Holmes, Todis, Walker & Golden, 1983). Although these instruments would not satisfy most criteria for "technical adequacy," they are useful for certain kinds of decisions related to planning programs and evaluating instruction. Most of the criteria for technical adequacy are largely irrelevant to more informal instruments that are used to design and evaluate instruction. Another useful instrument is the Social Behavior Assessment (Stephens, 1981), a structured rating scale that can be completed by teachers or parents. Considerable research has been conducted with the SBA at Iowa State by Gresham and his colleagues. The items are keyed to a companion volume that provides information on interventions that can be carried out with each of the social skills (Stephens, 1978). It should be noted here that the social competence information provided on the SBA is heavily oriented toward classroom functioning, especially what would often be regarded as classroom survival skills (e.g., staying on task and making requests in an appropriate fashion). This instrument provides relatively little information on "functional academics" or independent functioning outside of school setting.

## Decision-Making with Adaptive Behavior: Classification and Placement

The two primary national organizations involved with mental retardation, the American Association on Mental Deficiency (AAMD) and the Council for Exceptional Children - Mental Retardation Division (CEC-MR) attach considerable importance to adaptive behavior in classification and placement and program planning and intervention decisions. Both have published official policy statements concerning classification and placement decisions (Grossman, 1983; Polloway, 1985; Zucker & Polloway, 1987). In these statements, adaptive behavior is seen as critical to decision-making, but no policy statement endorses the direct application of single scores from specific instruments nor the use of precise cutoff scores (e.g., more than one standard deviation below the mean, or a standard score of approximately 75). Both suggest the application of judgment to interpretation of a wide variety of information on adaptive behavior. All clearly contemplate, and in my view, endorse, the use of standardized instruments as part of the information considered in making judgments about adaptive behavior.

Adaptive behavior should be one of the areas screened in the initial comprehensive evaluation for all students with mild disabilities, and it should be, along with general intellectual functioning, a central consideration in

mental disabilities diagnoses. The assessment of adaptive behavior should involve a broad variety of information including different methods, different sources, and different settings, including in-school and out-of-school. Information from these diverse methods, sources, and settings is often available to staffing teams but careful consideration of this information in placement recommendations, and programming goals is often obscure. Better classification decisions and sounder programming recommendations will be made if a variety of adaptive behavior information is considered and if that information plays a crucial role in these very important decisions. Further discussion of considerations related to degree and consistency of discrepancies, use of score scales, combining adaptive behavior and IQ data, and decisions about program options are provided in Reschly (1987a, b).

One of the most critical decisions which adaptive behavior should influence is choice of program option. This decision has not received sufficient attention in the past. In Figures 2 and 3, a tentative scheme for application of adaptive behavior information to choice of program options is provided. The scheme depicted in this table indicates that students would be placed in resource programs if their adaptive behavior deficits are restricted to functional academics and the school setting. Students would not be placed in largely segregated programs, for example, self-contained classes with integration (SCIN) and self-contained special classes with little integration, unless they had comprehensive adaptive behavior deficits. This principle should guide decision-making concerning program option, particularly with younger students.

The critical difference between the resource and the special class options involves the curricular goals established in each. Resource programs usually involve tutoring in basic skills and subjects or teaching compensatory mechanisms within regular education curriculum content and goals. In contrast, the special class options typically involve different curricular content and goals. Therein lies the crucial difference: whether or not a different curriculum is pursued. Typically, the special class involves greater emphasis on functional academic skills and acquisition of social competencies.

Students with relatively normal adaptive behavior in out-of-school settings are, almost by definition, performing adequately in functional academics and social competencies, the major emphases in special class programs. These students are likely to have adaptive behavior deficits largely restricted to academic skills in the school setting. If other classification criteria were met, they should be regarded as handicapped and in need of special education, but a special education that stresses academic skills, not social competencies per se. And the resource program meets that need better than the special class options, particularly for younger students.

The necessity of establishing different curricular goals for students with mild retardation usually becomes more apparent with increasing age and grade. For most junior and senior high students, alternative curricular goals will become increasingly necessary due to the increasing gap between their skill levels and grade or age averages. Here difficult decisions must be made about the entirely worthy, but competing goals of:

1. Basic skills acquisition.

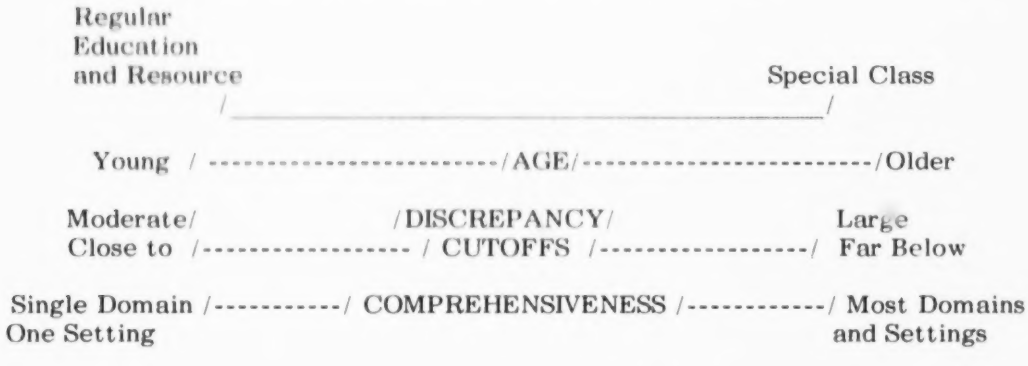
2. Content and subject knowledge.

3. Social competencies.

4. Occupational and vocational competencies.

Figure 3

Relationship of Student's Profile to Program Option

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Desehler, Shumaker, Lenz, and Ellis (1984) discussed these difficult choices in regard in students with learning disabilities. The choices are even more difficult in mild retardation programming due to the relatively lower basic skills levels.

The rather large jump from regular classroom to special class carries vast implications for the kind of curriculum the student receives and the opportunities to be placed back in regular education full time. Generally students placed in special classes, including the Iowa option of self-contained with integration (SCIN) typically have few, if any, opportunities to be placed back into regular education on a full-time basis. This occurs in large part because of the different curricular implications involved with special education programming (see Figure 4). The same curricular goals are typically pursued in regular education and in resource programs, but different curricular goals are typically pursued in special classes. The point is that the more restricted setting should be used only if other settings such as resource placement are proven to be insufficient. The initial placement of young students classified as mentally disabled should, unless there is compeling evidence to the contrary, be in the part-time resource rather than special class. If resource is clearly insufficient, there is time, particularly for younger students, to be placed in the self-contained classes.

Adaptive behavior should exert an important influence on whether or not a student is classified as mentally disabled and the kind of program option selected for students classified as mentally disabled. No student should be classified as mentally

disabled unless an adaptive behavior deficit is established. Moreover, the adaptive behavior pattern for the student,particularly in-school vs. out-of-school as well as the comprehensiveness of the adaptive behavior deficit (or deficits), should determine the choice of program option. Adaptive behavior should also influence program planning and interventions, a topic discussed in the next section.

Figure 4

Program Options for Students Who Are
Mildly Mentally Handicapped

LEAST RESTRICTIVE

| Administrative Option | Curriculuar Implications |
|---|---|
| REGULAR CLASS | Regular Curriculum |
| REGULAR CLASS WITH MODIFICATION | Regular Curriculum |
| RESOURCE TEACHING PROGRAM | Regular Curriculum with Modifications |
| SPECIAL CLASS | Special Curriculum |

MOST RESTRICTIVE

Decision-Making with Adaptive Behavior
Program Planning and Intervention

Students are not properly classified as mentally disabled unless deficits in one or more domains of adaptive behavior are clearly established during the initial comprehensive evaluation or in the reevaluation. If the deficit in adaptive behavior is of sufficient magnitude to justify classifying a student as mentally disabled, then that deficit must also be sufficiently important to require at least one general goal and several specific instructional objectives. The general goal and the specific objectives should be specified in the IEP. The four major adaptive behavior domains suggested in this chapter, social functioning, independent functioning, functional academics, and vocational and occupational are crucial domains of behavior for all persons. Perhaps this reasoning will clarify the importance of adaptive behavior in program planning and intervention. If the deficit was significant enough to justify the classification of mentally disabled, then the deficit is surely important enough to be included as part of the general goals and specific objectives for the individualized educational program.

The general adaptive behavior goals for the IEP can be developed from the pattern of strengths and weaknesses on norm referenced adaptive behavior

instruments. Typically, the norm referenced information is not sufficiently precise to develop specific instructional objectives. In most instances, a criterion referenced instrument or an expanded or comprehensive edition of the adaptive behavior inventory must be used to develop sufficiently precise information to develop objectives. Three of the adaptive behavior inventories discussed earlier do provide information with sufficient specificity to make decisions for program planning and intervention. These inventories, the Comprehensive Test of Adaptive Behavior, the Vineland Adaptive Behavior Scales - Expanded Edition, and the Social Behavior Assessment are appropriate for the purpose of developing specific objectives.

Perhaps the most efficient and effective way to use the longer or expanded versions of norm referenced adaptive behavior inventories is to use the expanded portion for the domain where a signficant deficit has been established. The norm referenced domain standard scores and percentile ranks indicate the student's level of performance in relation to other persons of the same age. For example, if the Vineland Adaptive Behavior Scale - Survey Edition scores to be relatively normal for independent functioning, and functional academics, but very low for social functioning, the social functioning portion of the Vineland Expanded Form might then be used.

Recent work in the area of social competence interventions has established a number of principles which should be applied, where appropriate, in designing programs for students with mental disabilities. A useful conceptualization of social skills interventions was provided in Gresham and Reschly (1987) (drawing primarily on Gresham's work with social skills interventions). In this formulation, interventions for social competence deficits were conceptualized as a four-stage process:

1. Skill acquisition

2. Skill performance

3. Eliminating interfering behavior

4. Promoting generalization

Gresham has described several specific intervention principles that are particuarly useful with each of these stages of intervention. For example, skill acquisition is promoted through the use of techniques like modeling and coaching (Cartlege & Milburn, 1983; Gresham, 1985).

Several procedures to enhance skill performance, such as behavioral rehearsal, application of reinforcement based principles, and enhancing appropriate cues and prompts related to performance in the skill, are also recommended by Gresham and others. In some instances, the third stage of this process is important, eliminating behaviors which interfere with either skill acquisition or skill performance. Nearly all educators are familiar with situations in which students are receiving more reinforcement for disruptive behavior than for appropriate, task-related behavior. Interventions to remove these interfering behaviors need to apply techniques designed to reduce or eliminate inappropriate behavior such as response cost, differential reinforcement of other behavior, group interdependent contingencies, and so on.

Generalization is the fourth stage of the intervention process. Generalization refers to the degree to which a behavior is maintained in a specific setting or transferred, as appropriate, to other settings or roles. Generalization refers to the performance of a behvior under subsequent, nontraining conditions. Stokes and Baer (1977) provided an excellent description of the different principles which might be used in promoting generalization.

Other recent formulations have stressed slightly different components of the intervention process. The ecological inventory approach developed by Brown and his colleagues (Brown, Branston-McClean, Baumgart, Vincent, Falvey & Schroeder, 1979) has been used widely with persons with severe handicaps. This approach involves a five-phase process:

1. Current level of functioning in major settings and associated activities is determined.

2. Current and future settings and activities where the individual might be functioning are identified.

3. The subsettings within each of thee major settings are identified.

4. An inventory of each subsetting is carried out to determine the activities that are necessary for successful functioning and these activities are further task analyzed into precise segments of behavior.

5. The handicapped person's performance on each of these behaviors is assessed.

This approach might be used with some students who are mildly mentally disabled, particularly those that are functioning at an especially low level or persons whose skills are quite different from developmental patterns. The ecological inventory approach attempts to teach skills in natural settings as a means to enhance transfer or generalization. Further information on this approach is available in Brown et al. (1979).

Another approach primarily concerned with generalization across settings, designed more for students with mild handicaps, was termed "transenvironmental programming" (Anderson-Inman, 1981). This model was
stressed by Horn and Fuchs (1987), in a discussion of transfer of skills from resource programs to regular education classrooms.

Transenvironmental programming also occurs in phases:

1. The specific skills and behaviors required for success in regular education are carefully identified. A useful approach ot identification of those skills might be to start with something like the task-related behaviors from the Social Behavior Assessment (Stephens, 1981).

2. The essential skills are taught in the resource room setting.

3. These skills are then transferred to the regular education setting through use of specific learning principles to promote generalization across settings.

4. The acquisition and performance of these skills in the regular education environment is then assessed to determine the degree to which further programming might be necessary.

The crucial role of adaptive behavior in mainstreaming efforts was emphasized by Horn and Fuchs. However, the same principles emphasized in the mainstreaming analysis are also relevant to acquisition and application of social competence skills in other settings.

Cone (1987) provided a particuarly insightful discussion of the possible relationships between norm referenced and criterion referenced adaptive behavior measures. Cone suggested that the norm referenced adaptive behavior measures might be useful for classification and placement decision-making and for determining general goals for instruction. However, he strongly emphasizes the necessity of developing criterion referenced information as a means to carry out interventions. Cone advocated use of a set of criterion referenced scales he has developed (the Pyramid Scales) (Cone, 1984).

## BEST PRACTICES

In this section, ten principles reflecting recommendations for best practices in the use of adaptive behavior with students classified as mentally disabled will be provided. The first eight principles were discussed extensively in the chapter. The ninth and tenth principles, pertaining to annual reviews and triennial reevaluations, are logical extensions of the first eight principles.

Principle 1: Adaptive Behavior Must be an Essential Part of Decision-Making with Students Classified as Mentally Disabled.

Comment: Adaptive behavior should be screened for all students referred due to learning or behavior problems and further diagnosis undertaken when screening reveals problems or when the classification of mental disability is considered. Resolution of adaptive behavior deficits may prevent classification of students as mildly handicapped or may substantially improve the success of mainstreaming efforts. For those reasons, adaptive behavior should be screened for all students. For students classified as mentally disabled, adaptive behavior is an essential and mandatory component of the basic diagnosis.

Principle 2: In Classification and Placement Decisions with Students in the Area of Mental Disabilities, Deficits in one or More Key Domains of Adaptive Behavior Must be Established.

Comment: Deficits in adaptive behavior are required by federal regulations, state special education rules, and key professional associations' classification recommendations. Students with no adaptive behavior deficits must not be classified as mentally disabled regardless of how low their IQ scores might be.

Principle 3: Multiple Sources, Settings, and Methods for Collection of Adaptive Behavior Information Should be Considered.

Comment: Determination of a deficit in adaptive behavior should never be based on a single test score from the domains or subdomains items on a standardized inventory. The use of standardized results from standardized inventories should be confirmed through further observation, interview, or review of other records.

Principle 4: Formal, Standardized Adaptive Behavior Inventories Should Always be Part of the Basis for Determination of Adaptive Behavior Deficits.

Comment: The technical adequacy of recently published adaptive behavior inventories is generally sound. These inventories help improve the assessment process by providing relatively objective information gathered under fairly standard conditions.

Principle 5: The Adaptive Behavior Deficit Must be Specified with Appropriate Documentation Cited Whenever Students are Classified as Mentally Disabled.

Comment: The specification and documentation will help ensure that adaptive behavior is considered properly and that adequate information is available to justify the classification decision as well as to provide guidance to programming efforts.

Principle 6: Adaptive Behavior Should Exert a Major Influence on Choice of Placement Options.

Comment: Adaptive behavior information should be the basis for deciding between resource teaching programs and special classes. Generally, younger students, particularly those with adaptive behavior deficits in only one setting, and with performance near classification cutoff points, should always be placed in resource teaching programs as their initial placement in special education. As these students become older, depending on the success of the resource program, changes may be needed either toward full-time placement in regular education or full-time in a special class. However, the initial placement should be resource.

Principle 7: One or More Adaptive Behavior Goals Should be Stated in the General Goals on the Individualized Educational Plan for Students Classified as Mentally Disabled

Comment: Adaptive behavior reflects those skills essential to personal independence and social responsibility. These are crucial goals for all children and youth in our society. They must be especially prominent in educational programming for students who are disabled. If the adaptive behavior deficit is sufficient to justify classification as mentally disabled, then the deficit is certainly of sufficient magnitude and importance to require special programming.

Principle 8: Specific Objectives and Instructional Routines Related to Acquisition of those Objectives must be Established for Each of the Adaptive Behavior Goals.

Comment: A variety of procedures are available for establishing specific objectives and interventions for adaptive behavior deficits. These objectives and associated interventions need to be included in the special education programming for most students who are mildly handicapped, and all who are mentally disabled.

Principle 9: Adaptive Behvior Should be Considered in the Annual Review for all Students Classified as Mentally Disabled.

Comment: Adaptive behavior is a crucial part of the programming and therefore it should be considered explicitly in the annual review. Progress toward acquisition of social competencies should be assessed carefully with appropriate changes made in the goals, instructional goals, or instructional routines.

Principle 10: Adaptive Behavior Should be Considered Systematically in the Reevaluation of Students Classified as Handicapped. For students classified as Mentally Disabled, Explicit Deficits in Adaptive Behavior Must be Documented in Order to Justify Continued Classification as Mentally Disabled.

Comment: Adaptive behavior, like general intellectual functioning, needs to be considered in reevaluations. This consideration may involve review of existing records, acquisitin of skills in systematic programming efforts, or administration of standardized inventories. The critical decisions to be made are whether the special education programming has improved adaptive behavior functioning. Finally, this information should be used in revisions of the general goals, instructional objectives, and instructional routines.

## SUMMARY

Adaptive behavior is crucial to decision-making with students classified as mentally disabled. Adaptive behavior should be prominent in decisions at all levels with students classified as mentally disabled, including the initial comprehensive evaluations, choice of placement option, determination of general IEP goals, determination of instructional objectives, selection of instructional routines, annual evaluation of progress, and in reevaluation. Recently developed instruments have improved resources available for assessment of adaptive behavior. The standardized inventories along with the informal measures provide useful information in determination of general strengths and weaknesses and, to somewhat lesser degree, specification of instructional objectives and instructional routines. The information that justifies classification of a student as mentally disabled should also be used in determination of placement option and in specification of general goals. Use of adaptive behavior in the decision-making process with mentally disabled students will enhance the likelihood of special education programming that does, indeed, improve the individual's likelihood of being personally independent and socially responsible as an adult.

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